

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A method of treating an exhaust gas of a lean-burn reciprocating engine containing NO_x, which method comprising sorbing ~~said~~ NO_x on at least one NO_x sorber ~~(30)~~ when the exhaust gas is lean, intermittently contacting the at least one NO_x sorber with an agent effective to convert NO_x to N₂ thereby to regenerate the at least one NO_x sorber and feeding effluent ~~of~~ from said intermittent contacting step ~~to the~~ an engine inlet ~~(14)~~.
2. (Currently Amended) A method according to claim 1, wherein the sorbing step comprising comprises simultaneously contacting the lean exhaust gas with at least two NO_x sorbers ~~(30A, 30B)~~ arranged in parallel, and wherein the intermittently contacting step comprises intermittently contacting fewer than all of the at least two NO_x sorbers simultaneously with said agent.
3. (Currently Amended) A method according to claim ~~2~~ 1, wherein ~~the~~ an exhaust gas flow ~~in through the or each~~ at least one NO_x sorber being regenerated during the intermittently contacting step is less than in ~~the or each~~ a NO_x sorber not being regenerated, and wherein substantially ~~the whole~~ all of the effluent ~~of the or each~~ from the at least one NO_x sorber(s) being regenerated by said intermittent contacting step is fed to the engine inlet.
4. (Currently Amended) A method according to claim ~~1, 2 or 3~~, wherein the agent is a non-selective reductant ~~such as hydrocarbon (HC), CO or hydrogen~~.
5. (Currently Amended) A method according to claim 4, wherein the agent non-selective reductant is engine fuel.
6. (Currently Amended) A method according to claim ~~1, 2 or 3~~, wherein the agent is a nitrogen hydride.
7. (Currently Amended) A method according to ~~any preceding~~ claim 1, further comprising ~~catalytic oxidation (22) of~~ catalytically oxidizing HC and CO to steam (H₂O_(g)), CO₂ and/or ~~of~~ NO to NO₂ upstream of the ~~or each~~ at least one NO_x sorber.

8. (Currently Amended) A method according to claim 7, further comprising collecting particulate matter (PM) collection (24) between the step of NO oxidation and the step of NO_x sorption.
9. (Currently Amended) A lean-burn reciprocating engine ~~(10)~~ emitting exhaust gas containing NO_x and having a treatment system ~~(19)~~ comprising at least one NO_x sorber ~~(30)~~ for sorbing NO_x when the exhaust gas is lean, means ~~(32)~~ for intermittently contacting the at least one NO_x sorber with an agent effective to convert NO_x to N₂ ~~thereby~~ to regenerate the at least one NO_x sorber and means for feeding effluent ~~of~~ from said intermittently contacting step to the an engine inlet (14).
10. (Currently Amended) An engine according to claim 9, further comprising exhaust gas recirculation (EGR) means (28, 34, 16) for use in normal or occasional modes of operation, which EGR means optionally comprising a pump.
11. (Currently Amended) An engine according to claim 9 ~~or 10~~, further comprising wherein the at least one NO_x sorber comprises at least two NO_x sorbers (30A, 30B) arranged in parallel, and further comprising a means for selectively contacting fewer than all of the at least two NO_x sorbers with the agent.
12. (Currently Amended) An engine according to claim 11, further comprising means for reducing the an exhaust gas flow to one of the at least one two NO_x sorbers during when the one of the at least two NO_x sorbers is being regenerated regeneration of that at least one NO_x sorber relative to an exhaust gas flow to another the at least one other NO_x sorber not being regenerated, and means for feeding to the engine inlet (14) substantially the whole all of the an effluent of from the or each one of the at least two NO_x sorbers being regenerated.
13. (Currently Amended) An engine according to claim 9, ~~10, 11 or 12~~, wherein the ~~or each~~ at least one NO_x sorber (30) is associated with injector means (32A, 32B) for introducing the agent to the exhaust gas at the an inlet of the or each at least one NO_x sorber (30A, 30B) during regeneration.
14. (Currently Amended) An engine according to ~~any of claims 9 to 13~~, wherein the agent comprising comprises a supply of agent.

15. (Currently Amended) An engine according to claim 14, wherein the agent is a non-selective reductant ~~such as hydrocarbon (HC), CO or hydrogen.~~
16. (Currently Amended) An engine according to claim ~~15~~ 14, wherein the agent is engine fuel.
17. (Currently Amended) An engine according to claim 13, further comprising a common-rail fuel injection ~~(12)~~-system with a branch to the ~~or each~~ injector of the at least one NO_x sorber ~~injectors (30A, 30B).~~
18. (Original) An engine according to claim 14, wherein the agent is a nitrogen hydride.
19. (Currently Amended) An engine according to ~~any of claims 9 to 18,~~ further comprising means, ~~in use,~~ for controlling the intermittent regeneration of the at least one NO_x sorber ~~(30)~~ and a means thefor feeding of the effluent of ~~from the or each~~ at least one NO_x sorber being regenerated ~~regeneration~~ to the engine inlet ~~(14), thereby to reduce wherein~~ the amount of regeneration agent released into the atmosphere is reduced relative to a similar engine lacking the means for feeding the effluent from the at least one NO_x sorber being regenerated ~~regeneration effluent~~ to the engine inlet.
20. (Currently Amended) An engine according to ~~any of claims 9 to 19,~~ wherein the system further comprises an oxidation catalyst ~~(22)~~-disposed upstream of the ~~or each~~ at least one NO_x sorber ~~(30)~~-for catalysing the oxidation of HC and CO to steam and CO₂ and/or ~~of~~ NO to NO₂.
21. (Currently Amended) An engine according to claim 20, wherein the system further comprises a particulate matter (PM) filter ~~(24)~~-located between ~~a~~ the NO oxidation catalyst ~~(20)~~ and the ~~or each~~ at least one NO_x sorber ~~(30).~~
22. (New) A method according to claim 4, wherein the non-selective reductant is selected from the group consisting of hydrocarbon (HC), CO, and hydrogen.
23. (New) An engine according to claim 10, wherein the EGR means comprises a pump.
24. (New) A engine according to claim 15, wherein the non-selective reductant is selected from the group consisting of hydrocarbon (HC), CO, and hydrogen.